



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/805,872	03/22/2004	John L. Caldwell	108298770US	9880
25096	7590	05/18/2005	EXAMINER	
PERKINS COIE LLP			NGUYEN, JIMMY	
PATENT-SEA			ART UNIT	
P.O. BOX 1247			PAPER NUMBER	
SEATTLE, WA 98111-1247			2829	

DATE MAILED: 05/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/805,872

Applicant(s)

CALDWELL ET AL.

Examiner

Jimmy Nguyen

Art Unit

2829

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 63 is/are pending in the application.
- 4a) Of the above claim(s) 1 - 16, 39 - 63 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17 - 23, 25 - 38 is/are rejected.
- 7) ☒ Claim(s) 24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1204</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

- I. Claims 1 - 16, drawn to a system for testing a microfeature device having a substrate and a plurality of interconnect element, classified in class 324, subclass 765.
- II. Claims 17 - 38, drawn to the structure of test socket , classified in class 324, subclass 755.
- III. Claims 39 - 51, drawn to method of testing a microfeature device having a substrate , classified in class 324, subclass 754.
- IV. Claims 51 - 63, drawn to a method for manufacturing a test socket, classified in class 29, subclass 884.

The inventions are distinct, each from the other because of the following reasons:

1. Inventions I, II, III and IV are related as apparatus and product made. The inventions in this relationship are distinct if either or both of the following can be shown:
(1) that the apparatus as claimed is not an obvious apparatus for making the product and the apparatus can be used for making a different product or (2) that the product as claimed can be made by another and materially different apparatus (MPEP § 806.05(g)). In this case the invention Iv is the method of manufacturing test socket, where is the inventions I, II, III are direct to the system, the method of testing and test socket structure itself.

Art Unit: 2829

2. Inventions II, III and I are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the invention I direct to the system for testing , on the other hand, the inventions II, III are direct to method of testing and the test socket structure itself.

3. Inventions II and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions the invention is direct to structure of the test socket, on the other hand the invention III direct to method of testing.

4. During a telephone conversation with Mr David T Dutcher on 5/12/05 a provisional election was made without traverse to prosecute the invention of II, claims 17 - 38. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1 – 16, 39 - 63 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claims Status

Claims 17 – 38 are pending.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

7. Claims 17 – 23, 25 – 38 are rejected under 35 U.S.C. 102(e) as being anticipated by Farnworth (US 6,757,972).

As to claims 17, 26, 32, 37, Farnworth disclose (fig 1)

A test socket (22) for receiving a microfeature device (20) having a substrate and a plurality of interconnect elements (28) projecting from the substrate, the test socket (22) comprising a recess (when the holding mechanism 26 is open, a

recess will form) having a lead-in surface (open surface) and a support surface (upper surface 24), the support surface (upper surface 24) including a plurality of apertures (30) positioned to receive corresponding interconnect elements (28) of the microfeature device (20), wherein the individual aperture (30) extend (see figs 8 – 10) through the test socket (22) and have a cross-sectional dimension (the head 38) less than a cross-sectional dimension of the interconnect elements (28) so that the substrate is spaced apart from the support surface (upper surface 24) when the microfeature device (20) is received in the recess.

As to claims 18, 29, 35, Farnworth disclose (fig 1) the test socket of claim surface are arranged in rows and 17 wherein the apertures (30) in the support columns corresponding to an array of interconnect elements (28) on the microfeature device (20).

As to claims 19, 30, 36, Farnworth disclose (fig 1) the test socket of claim 17 wherein:

the support surface (the upper surface 24) further comprises an opening, and the apertures (30) in the support surface are arranged around the perimeter of the opening so that when the microfeature device (20) is received in the recess, the apertures (30) receive the corresponding interconnect elements (28) and the other interconnect elements are positioned at the opening.

As to claim 20, Farnworth disclose (fig 1) the support surface (the upper surface 24) further comprises an opening, and the apertures (30) comprise at least three apertures around the opening.

As to claim 21, Farnworth disclose (fig 1) the test socket (22) of claim 17 wherein the cross-sectional dimension of the individual apertures (30) is from approximately 70 percent to approximately 80 percent of the cross-sectional dimension of the corresponding interconnect elements.

As to claims 22, 31, Farnworth disclose (fig 1) the test socket of claim 17, further comprising:
a body having the recess and a shelf, and
a ball support member carried by the shelf and having the support surface.

As to claim 23, Farnworth disclose (fig 1) the test socket of claim 17 wherein the individual apertures (30) comprise a beveled portion.

As to claims 25, 28, 34, Farnworth disclose (fig 1) the test socket of claim 17 wherein:

Art Unit: 2829

the cross-sectional dimension of the individual apertures (30) is a first, smallest diameter in the apertures; and the individual apertures comprise a first portion (the portion with the head 38) having the first, smallest diameter and a second portion having a second diameter greater than the first diameter.

As to claims 27, 33, Farnworth disclose (fig 1) the test socket wherein the individual apertures (30) have a cross sectional dimension less than a cross sectional dimension of the corresponding interconnect element (28).

As to claim 38, Farnworth disclose (fig 1) A test socket for receiving a microfeature device having a substrate and a plurality of interconnect elements (28) projecting from the substrate, the test socket (22) comprising a lead in surface and a means for supporting the microfeature device (20) within the test socket with the interconnect elements accessible for testing and without the substrate contacting the test socket.

Allowable Subject Matter

8. Claim 24 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 2829

The prior arts of record are fail to disclose the combination of the base claims with the test socket further comprising an exterior surface opposite the support surface, and wherein the individual apertures comprise a first beveled portion proximate to the support surface and a second beveled portion proximate to the exterior surface.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy Nguyen whose telephone number is (703) 306-5858. The examiner can normally be reached on M-F from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ramtez Nestor can be reached on 571-272-2034. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jimmy Nguyen

Application/Control Number: 10/805,872

Page 9

Art Unit: 2829

5/13/05


VINH NGUYEN
PRIMARY EXAMINER
A.U. 2829
05/16/05